Frequently Asked Questions
In-Use Off-Road Diesel Vehicle Regulation

Early Credit FAQ
July 2013

This is a guide to and explanation of the types of credit available to fleets before their first compliance year. You will need to use DOORS or hardcopy forms to report your early actions for credit.

For which credit is your fleet eligible?

- Did you replace a lower tiered engine in any of your vehicles with a Tier 1 or newer engine or rebuild an engine to a more stringent emissions standard?
  - → View more information on the Early Repowers and Rebuilds credit on page 2
- Did you reduce your total fleet horsepower between March 1, 2006 and March 1, 2010?
  - → View more information on the Early Reduced Fleet Horsepower credit on page 3
- Did you reduce your total fleet horsepower between March 1, 2010 and February 28, 2011?
  - → View more information on the 2010 to 2011 Reduced Horsepower credit on page 4
- Did you replace your Tier 0 vehicles at a high rate between March 1, 2006 and March 1, 2009?
  - → View more information on Early Replacement of Tier 0 credit on page 6
- Did you install any verified exhaust retrofits?
  - → View more information on Double Credit for Early Retrofits on page 7
- Did you replace or retire vehicles at a high rate after March 1, 2011?
  - → View more information on Interim Replacement and Retirement credit on page 9
- On March 1, 2010, did you earn credit in excess of 8% of your March 1, 2009 fleet horsepower?
  - → View more information on Delayed Requirements for Early Compliance on page 10

All of these actions must be reported either through DOORS or hardcopy forms in order for the fleet to receive credit. For each credit this guide will detail:

- who is eligible for the credit,
- how fleets can apply to ARB to receive credit, and
- an example of a fleet that receives credit under the specific provision.

While this document is intended to assist fleets with their compliance efforts, it does not alter or modify the terms of any ARB regulation. It is the sole responsibility of fleets to ensure compliance with the In-Use Off-Road Diesel Vehicle Regulation.

Early Repowers and Rebuilds (Title 13 CCR section 2449.1(b)(13))

Q – Who is eligible for credit for early repowers and rebuilds?

A – A repower is defined as a replacement of a vehicle's engine with a higher tier engine. Any fleet that took any of the following actions is eligible for this credit:

- repowered a Tier 0 engine with a Tier 1 or higher engine prior to March 1, 2009; or
- rebuilt a Tier 0 engine to a Tier 1 or higher emissions standard prior to March 1, 2009; or
- repowered a Tier 0 or Tier 1 engine with a Tier 2 or higher engine prior to January 1, 2013 for a large fleet, January 1, 2016 for a medium fleet, or January 1, 2018 for a small fleet; or
- rebuilt a Tier 0 or Tier 1 engine to a Tier 2 or higher emissions standard prior to January 1, 2013 for a large fleet, January 1, 2016 for a medium fleet, or January 1, 2018 for a small fleet.

Q – How can fleets apply for credit for early repowers?

A – Vehicles must first be reported in DOORS (or via hardcopy forms) with their old (original) engine; the old engine should subsequently be reported as removed/repowered or rebuilt. For repowers, the new engine should then be reported. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What is an example of a fleet receiving credit for repowers and rebuilds?

A – In 2004, a fleet repowered a 350 horsepower Tier 0 vehicle with a Tier 1 engine. In 2008, the same fleet repowered a 125 horsepower Tier 1 vehicle with a Tier 2. Credit for early repowers and rebuilds would equal:

350 HP + 125 HP = 475 HP Credit

Q – Are there any other provisions that affect the amount of repower and rebuild credit granted?

A – Yes, such provisions are listed below:

- After March 1, 2009, all repowers or rebuilds must be to Tier 2 or higher engines to provide credit.
- There is no limit on how early a repower or rebuild could have been done to provide credit (i.e., a repower as early as 1996 to a Tier 1 engine would provide credit).
- The credit can only be claimed for the repowered or rebuilt vehicle(s) that remain in the fleet when the credit is used.

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Early Reduced Fleet Horsepower Credit (Title 13 CCR section 2449.1(b)(16))

Q – Who is eligible for early reduced fleet horsepower credit?

A – Any fleet that has reduced its overall horsepower from March 1, 2006, compared to March 1, 2010, may receive credit equal to half of the reduction in horsepower. All fleet sizes may receive this credit, and it is available to use in order to comply with the January 1, 2015 BACT requirements or for any subsequent year.

Q – How can fleets apply for early reduced fleet horsepower credit?

A – Fleets that want credit for early reduced fleet horsepower must report in DOORS or through hardcopy forms all vehicles that were in the fleet since March 1, 2006. Once the fleet is reported and assigned Equipment Identification Numbers (EINs), the fleet owner can then report which vehicles were sold or retired, as shown in the DOORS User Guide on Retired or Sold Vehicles, which is available at http://www.arb.ca.gov/msprog/ordiesel/documents/doors/userguide-retiredsold.pdf. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What records do I need to maintain for retired vehicles?

A – For all retired vehicles that were reported for credit, the fleet owner will need to keep documentation showing that the retirement occurred. For example, for vehicles that were sold, the fleet owner should keep a record of the invoice from when the vehicle was sold or a copy of the bill of sale. For vehicles that were sold to a scrap yard, a copy of the scrap yard receipt should be saved. For vehicles that were scrapped but not sold to a scrap yard, the fleet must keep some other documentation demonstrating that the scrappage occurred.

Q – What is an example of a fleet receiving early reduced fleet horsepower credit?

A – On March 1, 2006, a fleet owned 50 vehicles, with a total of 12,000 horsepower. From 2006 to 2010, the fleet sells off vehicles and replaces vehicles. On March 1, 2010, the fleet owns 45 vehicles, with a total horsepower of 10,500.

The fleet reports all 50 of the original vehicles, and then reports all sales, additions, and replacements that occurred since March 1, 2006. Early reduced fleet horsepower credit would equal:

½ x [12,000 HP (March 1, 2006 Fleet) – 10,500 HP (March 1, 2010 Fleet)]
= 750 HP Credit

Q – Are there any other provisions that affect the amount of early reduced fleet horsepower credit granted?

A – Yes, such provisions are listed below:

- Early reduced fleet horsepower credit may not be used to meet BACT requirements for the first compliance year for large fleets (January 1, 2014).
- It does not matter which vehicles were retired/sold (Tier 0, Tier 3, etc.). In other words, the off-road regulation's order of turnover requirements do not apply to early reduced fleet horsepower credit.
- The calculation for early reduced fleet horsepower credit does not take into account horsepower on any interim dates (i.e., whether the fleet was up or down in 2007, 2008, etc.).
- Designating a vehicle as low-use does not generate early reduced fleet horsepower credit (i.e., vehicles whose use drops below 200 hours per year still count toward the total fleet horsepower for the purpose of this credit).
- Early reduced fleet horsepower credit does not expire; it lasts until used to meet BACT requirements.

2010 to 2011 Reduced Fleet Horsepower Credit (Title 13 CCR section 2449.1(b)(17))

Q – Who is eligible for 2010 to 2011 reduced fleet horsepower credit?

A – Any fleet that has reduced their overall horsepower from March 1, 2010, compared to February 28, 2011, may receive credit equal to the reduction in horsepower. All fleet sizes may receive this credit.

Q – How can fleets apply for 2010 to 2011 reduced fleet horsepower credit?

A – Fleets that want credit for 2010 to 2011 reduced fleet horsepower must report all vehicles that were in the fleet since March 1, 2010 in DOORS or through hardcopy forms. Once the fleet is reported and assigned Equipment Identification Numbers (EINs), the fleet owner can then report which vehicles were sold or retired, as shown in the DOORS User Guide on Retired or Sold Vehicles, which is available at http://www.arb.ca.gov/msprog/ordiesel/documents/doors/userguide-retiredsold.pdf. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What records do I need to maintain for retired vehicles?

A – For all retired vehicles that were reported for credit, the fleet owner will need to keep documentation showing that the retirement occurred. For example, for vehicles that were sold, the fleet owner should keep a record of the invoice from when the vehicle was sold or a copy of the bill of sale. For vehicles that were sold to a scrap yard, a copy of the scrap yard receipt should be saved. For vehicles that were scrapped but not sold to a scrap yard, the fleet must keep some other documentation demonstrating that the scrappage occurred.

Q – What is an example of a fleet receiving 2010 to 2011 reduced fleet horsepower credit?

A – On March 1, 2010, a fleet owned 45 vehicles, with a total of 10,500 horsepower. From 2010 to 2011, the fleet sells off vehicles and replaces vehicles. On February 28, 2011, the fleet owns 40 vehicles, with a total horsepower of 9,000.

The fleet reports all 45 of the vehicles and then reports all sales, additions, and replacements that occurred since March 1, 2010. The 2010 to 2011 reduced fleet horsepower credit would equal:

[10,500 HP (March 1, 2010 Fleet) – 9,000 HP (February 28, 2011 Fleet)]
= 1,500 HP Credit

Q – Are there any other provisions that affect the amount of 2010 to 2011 reduced fleet horsepower credit granted?

A – Yes, such provisions are listed below:

- 2010 to 2011 reduced fleet horsepower credit does not expire; it lasts until used to meet BACT requirements.
- It does not matter which vehicles were retired (Tier 0, Tier 3, etc.). In other words, the off-road regulation's order of turnover requirements do not apply to 2010 to 2011 reduced fleet horsepower credit.
- Designating a vehicle as low-use does not generate 2010 to 2011 reduced fleet horsepower credit (i.e., vehicles whose use drops below 200 hours per year still count toward the total fleet horsepower for the purpose of this credit).

Early Replacement of Tier 0 Credit (Title 13 CCR section 2449.1(b)(14))

Q – Who is eligible for credit for early replacement of Tier 0 vehicles?

A – Only fleets with a high rate of turnover of Tier 0 vehicles will qualify for this credit. If a fleet replaces Tier 0 vehicles that total more than 8% of their total fleet horsepower on an annual basis from March 1, 2006 to March 1, 2009, they will receive credit for the amount that exceeds 8% each year.

Early replacement of Tier 0 credit can be calculated with the following formula:

[HP of Tier 0 vehicles retired between March 1, 2006 and March 1, 2009]
– [HP of Tier 0 vehicles added between March 1, 2006 and March 1, 2009]
– [2 x Early Reduced Fleet HP Credit] – [0.08 x Fleet HP on March 1, 2007]
– [0.08 x Fleet HP on March 1, 2008] – [0.08 x Fleet HP on March 1, 2009]
= Early Replacement Credit

Q – How can fleets apply for early Tier 0 replacement credit?

A – Fleets that want credit for early replacement of Tier 0 vehicles must report all vehicles that were in the fleet since March 1, 2006 in DOORS or through hardcopy forms. Once the fleet is reported and assigned Equipment Identification Numbers (EINs), the fleet owner can then report which vehicles were sold or retired, as shown in the DOORS User Guide on Retired or Sold Vehicles, which is available at http://www.arb.ca.gov/msprog/ordiesel/documents/doors/userguide-retiredsold.pdf. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What is an example of a fleet receiving credit for early Tier 0 replacement?

A – On March 1, 2006, a fleet has a total of 20,000 horsepower composed of Tier 0 vehicles only. The fleet begins replacing 2,500 horsepower with Tier 1 and Tier 2 vehicles each year until March 1, 2009. By March 1, 2009, the fleet had replaced 7,500 horsepower of Tier 0 equipment.

The overall fleet horsepower throughout this time stayed constant at 20,000. The credit for early Tier 0 replacement would equal:

[7,500 HP (Tier 0 vehicles retired between March 1, 2006 and March 1, 2009)]
– [0 HP (Tier 0 vehicles added between March 1, 2006 and March 1, 2009)]
– [2 x 0 HP (Early Reduced Fleet HP Credit)]

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– [0.08 x 20,000 HP (March 1, 2007 Fleet)]
– [0.08 x 20,000 HP (March 1, 2008 Fleet)]
– [0.08 x 20,000 HP (March 1, 2009 Fleet)]
= 2,700 HP Credit

Q – Are there any other provisions that affect the amount of early replacement credit granted?

A – Yes, such provisions are listed below:

- Early replacement credit does not expire; it lasts until used to meet BACT requirements.
- Tier 0 vehicles repowered with newer engines are counted in the early repower credit and are not counted towards early replacement credit.
- If Tier 0 retirements were counted in the early reduced fleet horsepower credit, it will not be counted towards the early replacement credit (as shown in the formula above).

Double Credit for Early Verified Diesel Emission Control Strategy (VDECS) (Title 13 CCR section 2449.1(b)(15))

Q – Who is eligible for double credit for early VDECS?

A – All fleets that purchase or install VDECS (retrofits) on off-road diesel vehicles by the dates specified below may claim double credit.

Large Fleets – January 1, 2013
Medium Fleets – January 1, 2016
Small Fleets – January 1, 2018

Double credit for VDECS can be calculated as shown below:

Highest Level Particulate Matter (PM) VDECS:

(HP of Vehicle with VDECS Installed) x 2 = Double Credit for PM VDECS

Verified Oxides of Nitrogen (NOx) + PM VDECS (but not the highest level PM):

(% NOx Reduction / 60%) x (HP of Vehicle with VDECS Installed) x 2
= Double Credit for NOx + PM VDECS

Verified NOx + Highest Level PM VDECS:

[(% NOx Reduction / 120%) x (HP of Vehicle with VDECS Installed) x 2]
+ [(HP of Vehicle with VDECS Installed) x 2]
= Double Credit for NOx + Highest Level PM VDECS

Q – How can fleets apply for double VDECS credit?

A – To receive credit, fleets must report all VDECS, including the date of purchase and installation date, in DOORS or through hardcopy forms. Those VDECS installed or purchased prior to the dates shown above will be granted double credit. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What is an example of a fleet receiving double credit for early VDECS?

A – On March 1, 2006, a fleet installs the highest level PM VDECS on a 500 horsepower vehicle. On June 1, 2007, the same fleet also installs a VDECS that is verified to reduce NOx by 40% and is also the highest level PM VDECS available on a 300 horsepower vehicle. The double credit for early VDECS would equal:

[500 HP x 2 (Highest Level PM VDECS)]
+ [(40% / 120%) x 300 HP x 2 + (300 HP x 2) (NOx + Highest Level PM VDECS)]
= 1800 HP Credit

Q – Are there any other provisions that affect the amount of double credit for early VDECS?

A – Yes, such provisions are listed below:

- Double credit for early VDECS does not expire; it lasts until it is used or unless it is forfeited (see below).
- Removing a VDECS for which credit was granted may result in a loss (forfeiture) of credit, depending on the reasons for VDECS removal. Please see the "Removal or Failure of Verified Diesel Emission Control Strategies (VDECS) FAQ" in our Knowledge Center.
- After the deadline for earning double credit passes, fleets can still earn single credit for installing VDECS.
- VDECS credit remains with the fleet, even if the vehicle is later sold or retired.

Interim Replacement and Retirement Credit (Title 13 CCR section 2449.1(b)(18))

Q – Who is eligible for interim replacement and retirement credit?

A – Fleets that replace or retire Tier 0 and Tier 1 vehicles at a high rate starting on March 1, 2011, may qualify for this credit. If a fleet replaces or retires Tier 0 and Tier 1 vehicles that total more than 8% of their total fleet horsepower in any calendar year, they will receive credit for the amount that exceeds 8%. Fleets are eligible for this credit during the dates specified below:

Large Fleets – March 1, 2011 through December 31, 2012
Medium Fleets – March 1, 2011 through December 31, 2015
Small Fleets – March 1, 2011 through December 31, 2017

Interim replacement and retirement credit can be calculated as shown below:

(HP of Tier 0 and Tier 1 Vehicles Retired in one calendar year)
– (HP of Tier 0 and Tier 1 Vehicles Added in the same calendar year)
– [0.08 x (HP of Fleet at the end of the same calendar year)]
= Interim Replacement and Retirement Credit

Q – How can fleets apply for interim replacement and retirement credit?

A – Fleets that want interim replacement and retirement credit must report all vehicles that were in the fleet since March 1, 2011, in DOORS or through hardcopy forms. Once the fleet is reported and assigned Equipment Identification Numbers (EINs), the fleet owner can then report which vehicles were added or sold. For more information, please see our DOORS User Guides on Updating Fleet Information and Retired or Sold Vehicles available at http://www.arb.ca.gov/msprog/ordiesel/documents/doors/userguide-retiredsold.pdf. The credit will be calculated and added to your fleet automatically and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – What is an example of a fleet receiving interim replacement and retirement credit?

A – On June 1, 2012, a fleet sells three Tier 0 vehicles and one Tier 1 vehicle with 275 horsepower each. On September 15, 2012, the fleet also purchases 2 Tier 1 vehicles with 200 horsepower each. At the end of the year, the fleet has a total of 6,000 horsepower, not including low-use vehicles. The interim replacement and retirement credit would equal:

[4 x 275 HP (HP of Tier 0 and Tier 1 Vehicles Retired in 2012)]
– [2 x 200 HP (HP of Tier 0 and Tier 1 Vehicles Added in 2012)]
– [0.08 x 6,000 HP (Fleet HP on December 31, 2012)]
= 220 HP Credit

Delayed Requirements for Early Compliance (Title 13 CCR section 2449.1(b)(7))

Q – Who is eligible for delayed requirements for early compliance?

A – On March 1, 2010, large fleets that have earned BACT credit in excess of 8% its March 1, 2009 horsepower are exempt from the January 1, 2014 fleet average or BACT requirements.

BACT credit earned as of March 1, 2010 can be calculated by summing credits as shown below:

[Early Repowers and Rebuilds Credit] + [Early Replacement of Tier 0 Credit]
+ [Double Credit for Early VDECS] + [Credit for Early Reduced Fleet HP]
+ [BACT credit gained for turnover from 3/1/2009 through 2/28/2010 (and not accounted for under Early Reduced Fleet HP Credit)]
= BACT Credit as of March 1, 2010

If the fleet's BACT credit as of March 1, 2010 is greater than [0.08 x (March 1, 2009 Fleet HP)], the fleet is eligible for delayed requirements for early compliance.

Q – What is an example of turnover credit earned from March 1, 2009 through February 28, 2010 that is not accounted for under early reduced fleet horsepower credit?

A – From March 1, 2009 through February 28, 2010, a fleet turns over 2,500 hp in Tier 0 vehicles and 3,000 hp in Tier 2 vehicles, but keeps Tier 0 and Tier 1 vehicles in its fleet. Overall, the fleet shrinks by 2,000 horsepower from March 1, 2006 through February 28, 2010. The fleet earns early reduced fleet horsepower credit equaling 1,000 hp (2,000 hp x 0.5). The turnover of Tier 2 vehicles is counted toward the early reduced fleet horsepower credit; therefore, the fleet would also earn 2,500 hp in credit for the turnover of Tier 0s between March 1, 2009 and February 28, 2010. (The fleet does not get credit for the remaining 1,000 hp in Tier 2 turnover that occurs between March 1, 2009 and February 28, 2010 because it still has Tier 0 and 1 vehicles in its fleet, i.e., due to order of turnover requirements.)

Q – How can fleets apply for delayed requirements for early compliance?

A – Fleets that are eligible for delayed requirements for early compliance must report all vehicles that were in the fleet since March 1, 2006 in DOORS or through hardcopy forms. Once the fleet is reported and assigned Equipment Identification Numbers (EINs), the fleet owner can then report any actions that were taken such as vehicle sales/retirements, engine repowers or rebuilds, and VDECS installed, as shown in the DOORS User Guides, which are available in the Knowledge Center at http://www.arb.ca.gov/msprog/ordiesel/knowcenter.htm. BACT credit will be calculated and the delayed requirements for early compliance will be automatically applied and can be accessed by viewing the Compliance Snapshot in your DOORS account.

Q – Are there any other provisions that affect the delayed requirements for early compliance?

A – Yes, such provisions are listed below:

- Using the delayed requirements for early compliance provision does not use any previous BACT credit accrued by the fleet (i.e., the fleet's BACT credit will not be reduced, even when that credit is used to determine eligibility for delayed requirements).
- If a fleet meets the January 1, 2014 fleet average target, the delayed requirements for early compliance is not extended to a future year.